

ABSTRACTTITLE:

- Configurable and orientable antenna and corresponding base station

APPLICANTS:

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The present invention relates to an antenna enabling the shaping of at least one beam of radioelectric waves (4, 5, 61, 62, 91, 92) of at least one determined wavelength, of the type comprising at least one radiating element (2) the waves, preferably passive, placed in a set of wires or bars (1) reflective for the wave and substantially parallel to one another, made of a Photonic Band Gap (PBG) material and forming a determined structure, said determined structure including defects so as to shape said at least one beam in a direction relative to the position and/or the configuration of said defects. According to the invention, said wires or bars and the defects are arranged on a set of N concentric closed curves of a plane, N being greater than or equal to one, the radiating element being arranged inside the innermost curve. Preferably the curves are circles and the wires/bars may be controlled to switch from a conductive/reflective state of the waves to a transparent state.

Figure 9